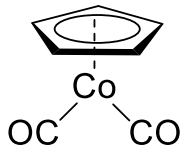
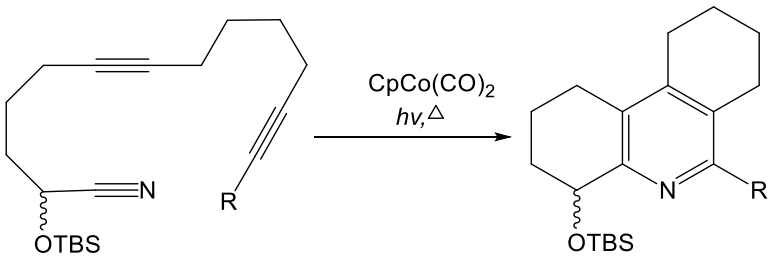
Catalog # 27-0550 Cyclopentadienylcobalt dicarbonyl, min. 95%



Catalysis Applications

Technical Notes:

1. Intramolecular cobalt-catalyzed [2+2+2] cycloaddition of O-protected diyne-cyanohydrins



Tech Note (1)
Ref. (1)

References:

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CVD/ALD Applications

- Vapor pressure curve available in [1]; 0.5 Torr at 20 °C [1, 4, 11]
- Boiling point 37-38 °C [4]
- Decomposition temperature ~140 °C [4-6]

Technical Notes:

1. Liquid cobalt precursor for ALD and CVD of cobalt metal and cobalt oxide containing thin films.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Co	PEALD	0 °C		NH_3 plasma	250-400 °C	[6]
Co	PEALD	70 °C	0.4-1.5 Torr	H_2, NH_3, N_2, Ar plasma	150-250 °C	[12]

Co	CVD	12.7-20 °C	50-760 Torr	H_2, He	120-600 °C	[1, 4]
Co	PACVD	12.7 °C	760 Torr	H_2	70-300 °C	[5]
CoGa	CBE	20 °C	0.03-0.05 mTorr	$GaEt_3$	320-480 °C	[3]
CoO_x	ALD	0 °C	9 Torr	O_3	50-200 °C	[10]
CoO_x	CVD	20 °C	0.8-8 mTorr	O_2	200-650 °C	[11]
Co_3O_4	PECVD	20 °C	0.3-0.6 Torr	Ar, O_2 plasma	20 °C	[7]
$LiCoO_2$	CVD	1 °C	5-21 Torr	^{t}BuLi, O_2, N_2O	300-500 °C	[2]
$LiCoO_2$	CVD	18 °C	4.5 Torr	^{t}BuLi, O_2	300-600 °C	[8, 9]
$CoSi_2$	CVD	20 °C	760 Torr	SiH_4, H_2	300-700 °C	[1]

References:

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4. Chem. Vap. Deposition **2005**, *11*, 235.
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6. Electrochem. Solid-State Lett. **2006**, *9*, G323.
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10. J. Vac. Sci. Tech. A **2013**, *31*, 01A145.
11. Thin Solid Films **2014**, *567*, 8.
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